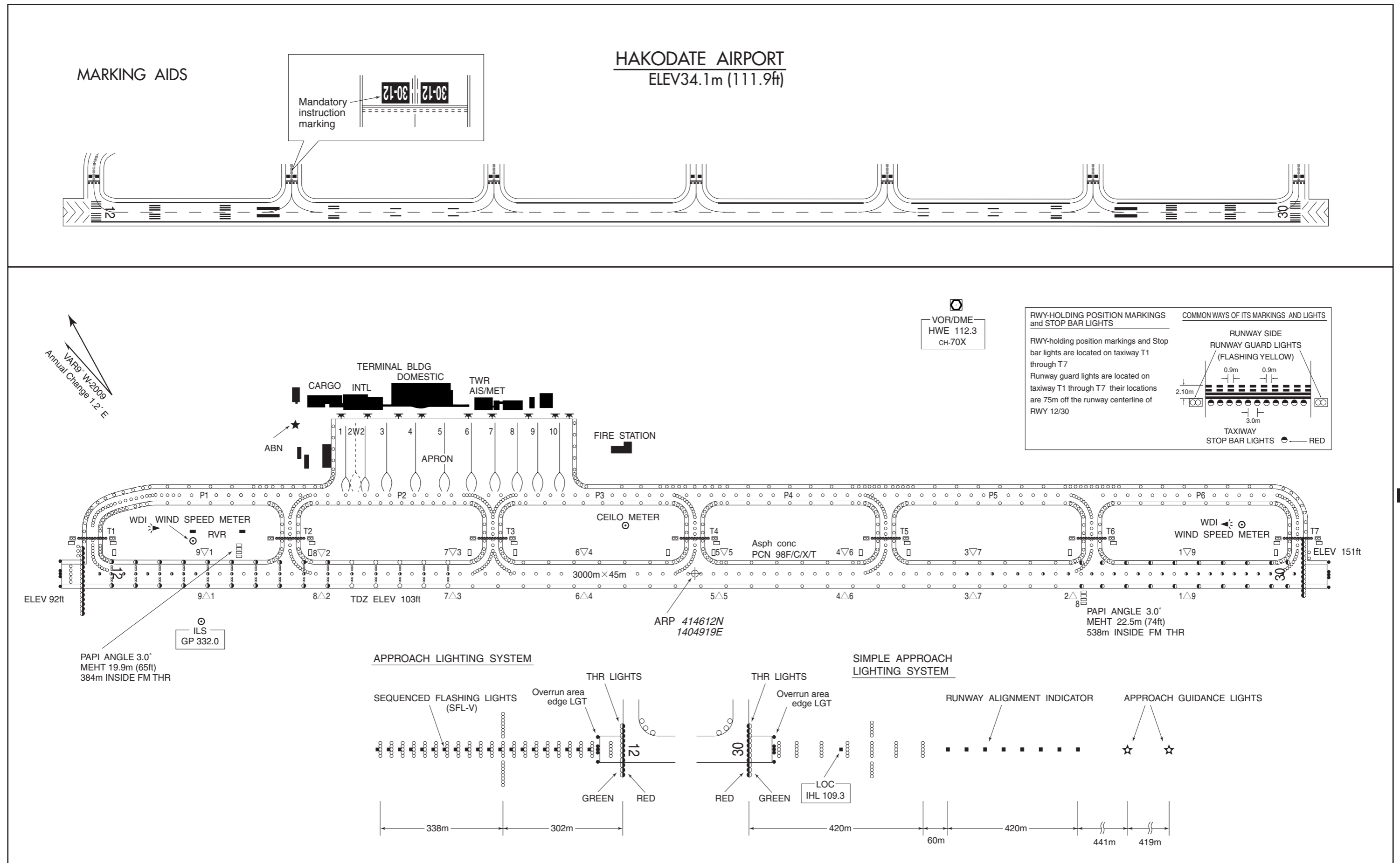


AERODROME CHART



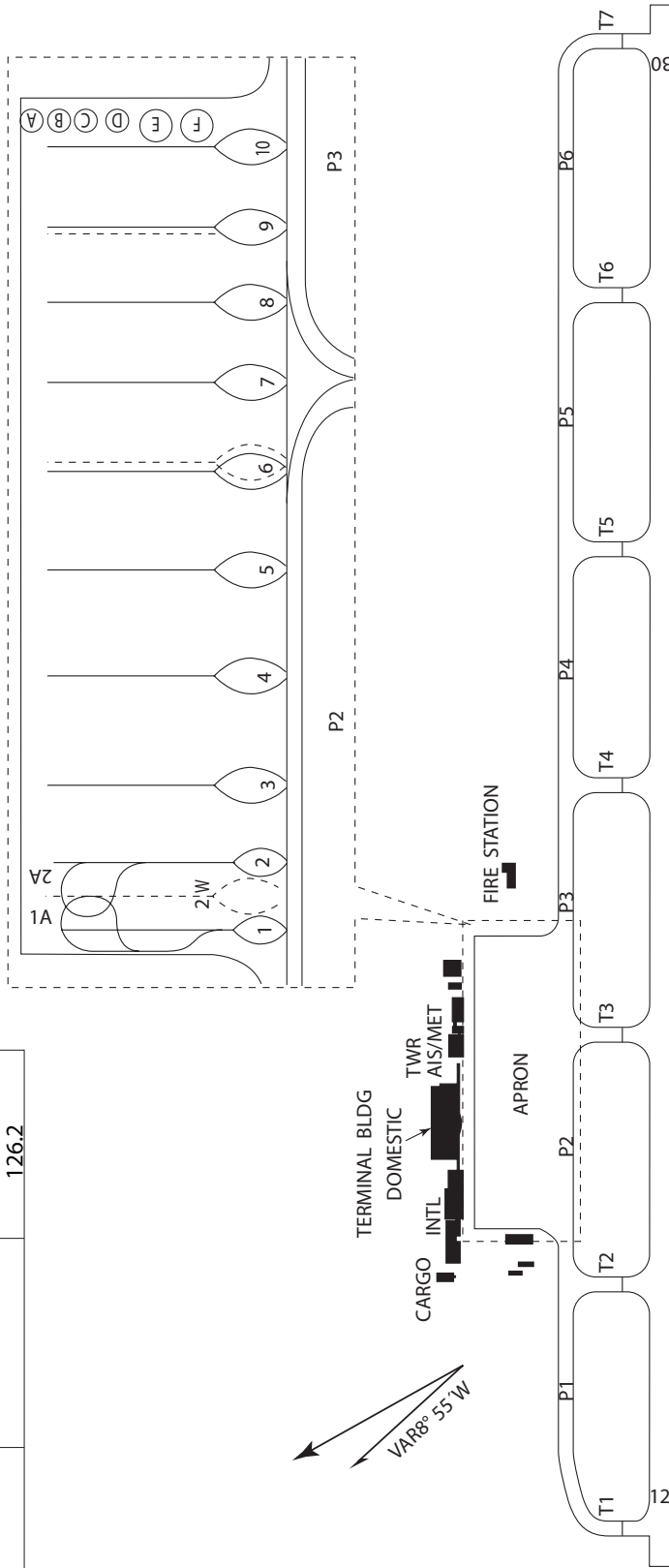
**AIRCRAFT PARKING/DOCKING CHART**

RJCH / HAKODATE

AD CHART

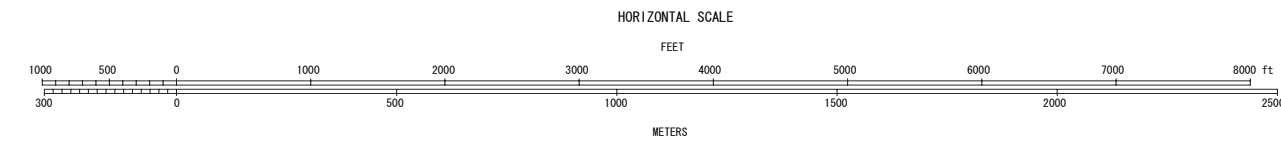
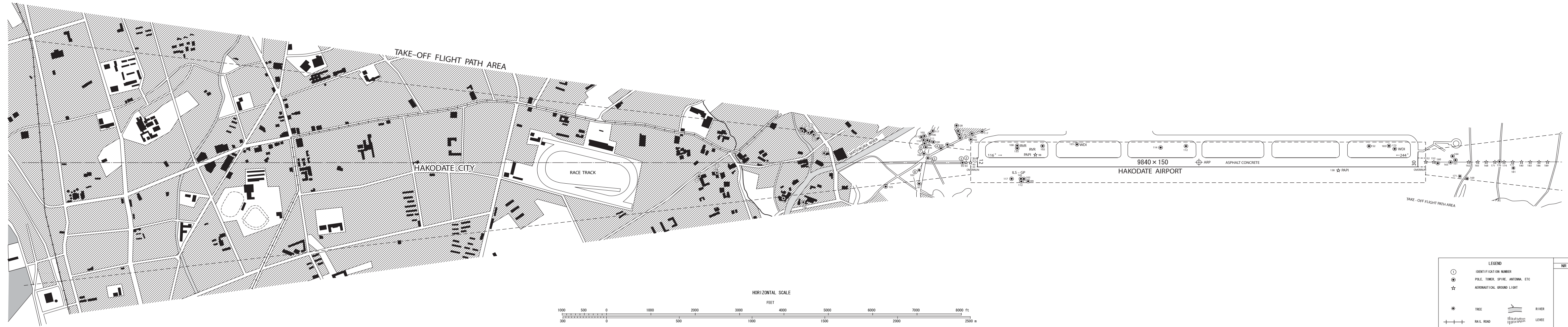
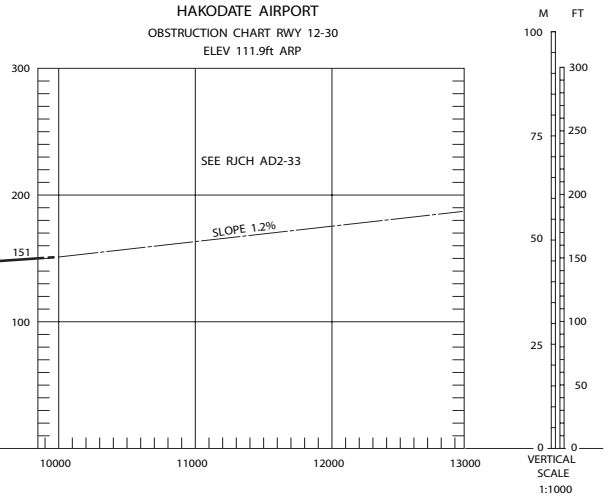
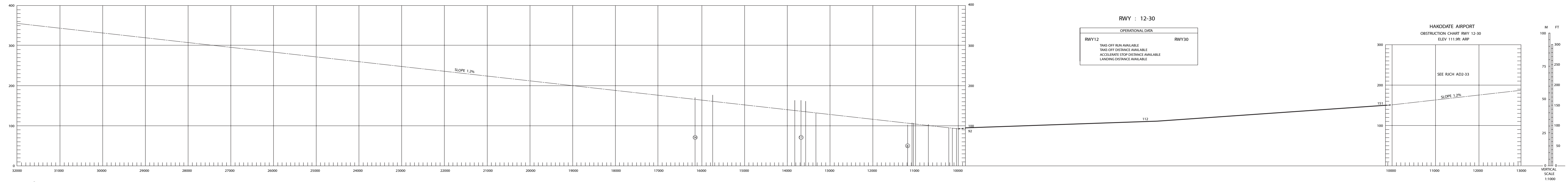
**HAKODATE AIRPORT**  
 ELEV34.1m (111.9ft)

Designation	Call Sign	Frequency (MHz)
ATIS	Hakodate Airport	126.6
TWR	Hakodate Tower	118.35 258.3 126.2



AERODROME OBSTRUCTION CHART-ICAO  
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC  
MAGNETIC VARIATION 8°55.4'-OCT 2004

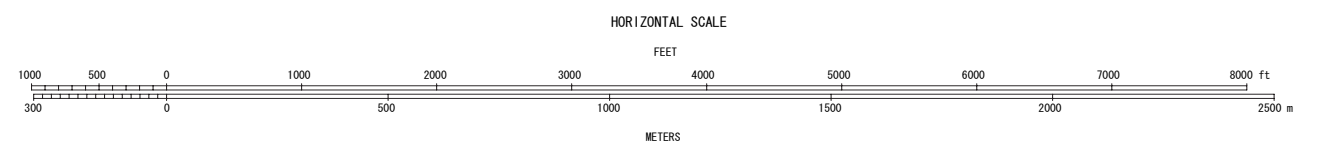
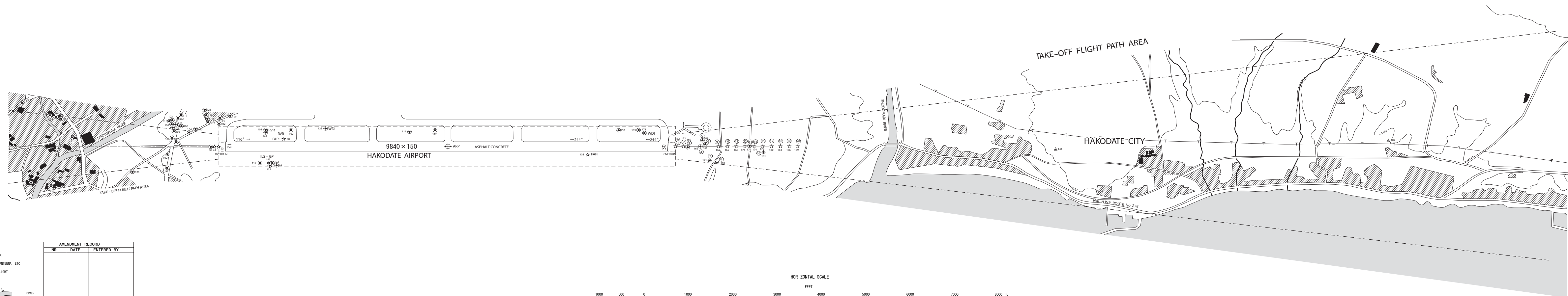
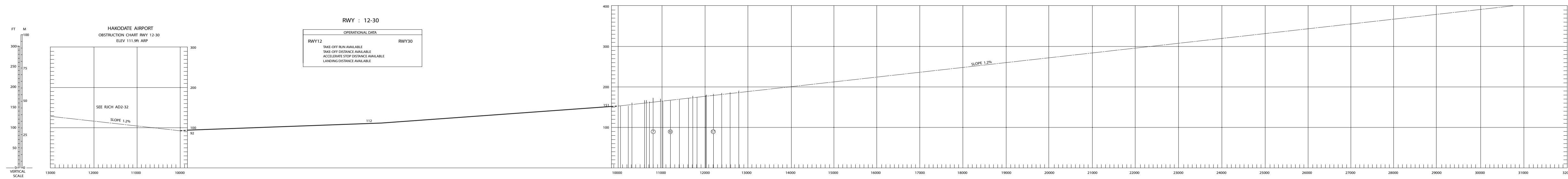


LEGEND		AMENDMENT RECORD		
①	IDENTIFICATION NUMBER	NR	DATE	ENTERED BY
⊙	POLE, TOWER, SPIRE, ANTENNA, ETC			
☆	AERONAUTICAL OBSTACLE LIGHT			
*	TREE			
— — —	RAIL ROAD			
— — —	TRANSMISSION LINE OR OVERHEAD CABLE			
△	TRIANGULATION POINTS			
— — —	RIVER			
— — —	LEVEE			

AERODROME OBSTRUCTION CHART-ICAO  
TYPE A (OPERATING LIMITATIONS)

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC

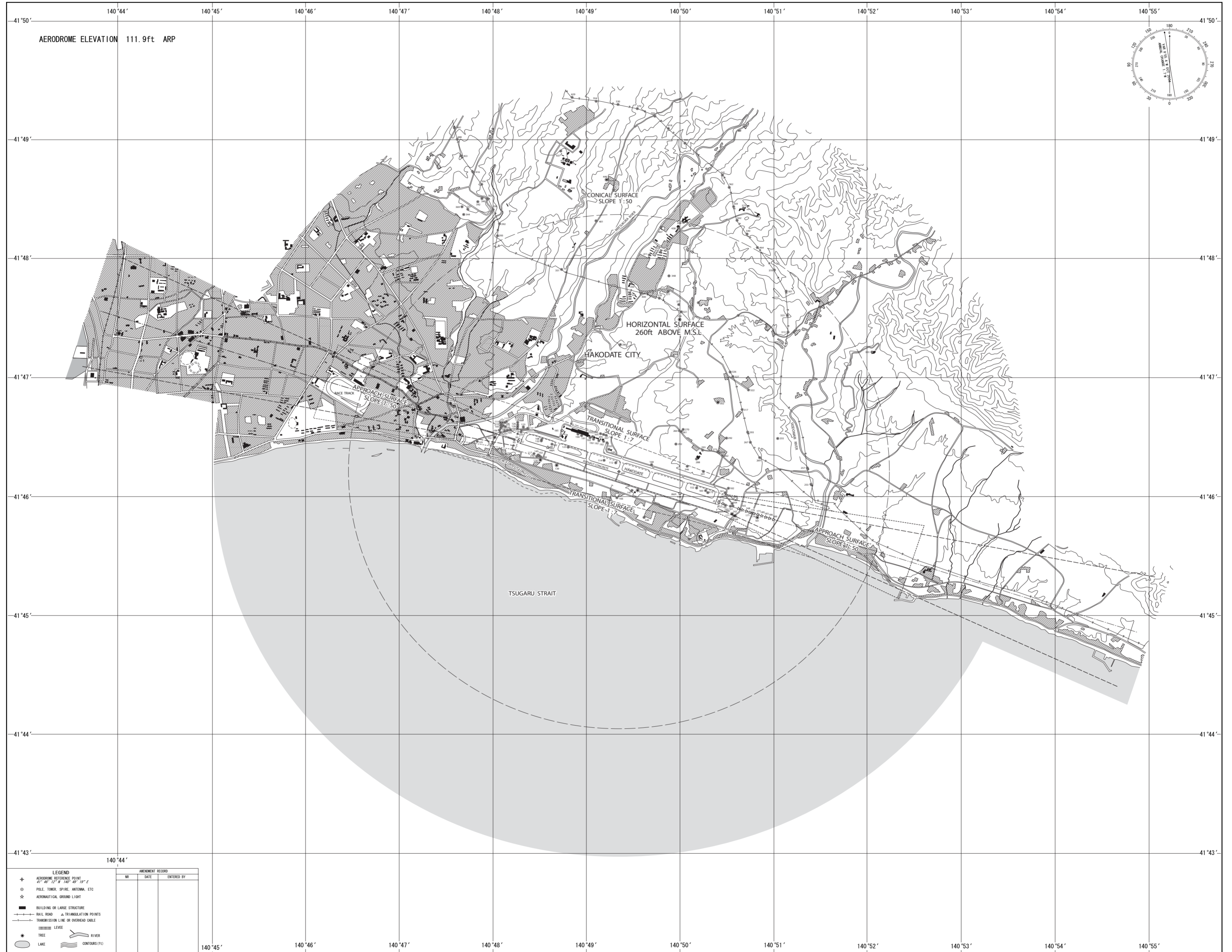
MAGNETIC VARIATION 8°55.4' - OCT 2004



LEGEND		AMENDMENT RECORD		
		NR	DATE	ENTERED BY
○	IDENTIFICATION NUMBER			
●	POLE, TOWER, SPIRE, ANTENNA, ETC			
☆	AERONAUTICAL GROUND LIGHT			
*	TREE			
+	RAIL ROAD			
—+—	TRANSMISSION LINE OR OVERHEAD CABLE			
△	TRIANGULATION POINTS			

AERODROME OBSTRUCTION CHART-ICAO  
TYPE B

DIMENSIONS AND ELEVATIONS IN FEET BEARINGS ARE MAGNETIC



STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID and TRANSITION

HAKODATE SOUTH SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239° ,....

RWY 30: Climb RWY HDG until 500FT, turn left HDG149° ,....

....to intercept and proceed via HWE R194 to MRE VOR/DME.

Cross HWE R194/30.0DME at or above 6000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

HAKODATE REVERSAL FIVE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG239° ,....

RWY 30: Climb RWY HDG until 500FT, turn left HDG149° ,....

....to intercept and proceed via HWE R194 to 3000FT, turn right direct to HWE VOR/DME.

Cross HWE VOR/DME at or above 5000FT.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

TAPPI SEVEN DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG272° ,....

RWY 30: Climb RWY HDG until 500FT, turn left HDG182° ,....

....to intercept and proceed via HWE R227 to TAPPI. Cross TAPPI at or above FL170.

Note RWY12 : 4.0% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

YUWA TRANSITION

From over TAPPI, proceed via UWE R008 to UWE VOR/DME.

Cross UWE R008/21.0DME at assigned altitude.

ESASI FIVE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn right HDG340° ,....

RWY 30: Climb RWY HDG until 700FT, turn right,....

....to intercept and proceed via HWE R295 to ESASI.

Note RWY12 : 4.9% climb gradient required up to 1300FT.

OBST ALT 919FT located at 3.43NM 105° FM end of RWY12.

TIKYU ONE DEPARTURE

RWY 12: Climb RWY HDG until 600FT, turn left,....

RWY 30: Climb RWY HDG until 600FT, turn left HDG073° ,....

....to intercept and proceed via HWE R118 to TIKYU.

Cross TIKYU at or above 6000FT.

Note RWY12 : 6.3% climb gradient required up to 1700FT.

OBST ALT 1302FT located at 4.03NM 101° FM end of RWY12.

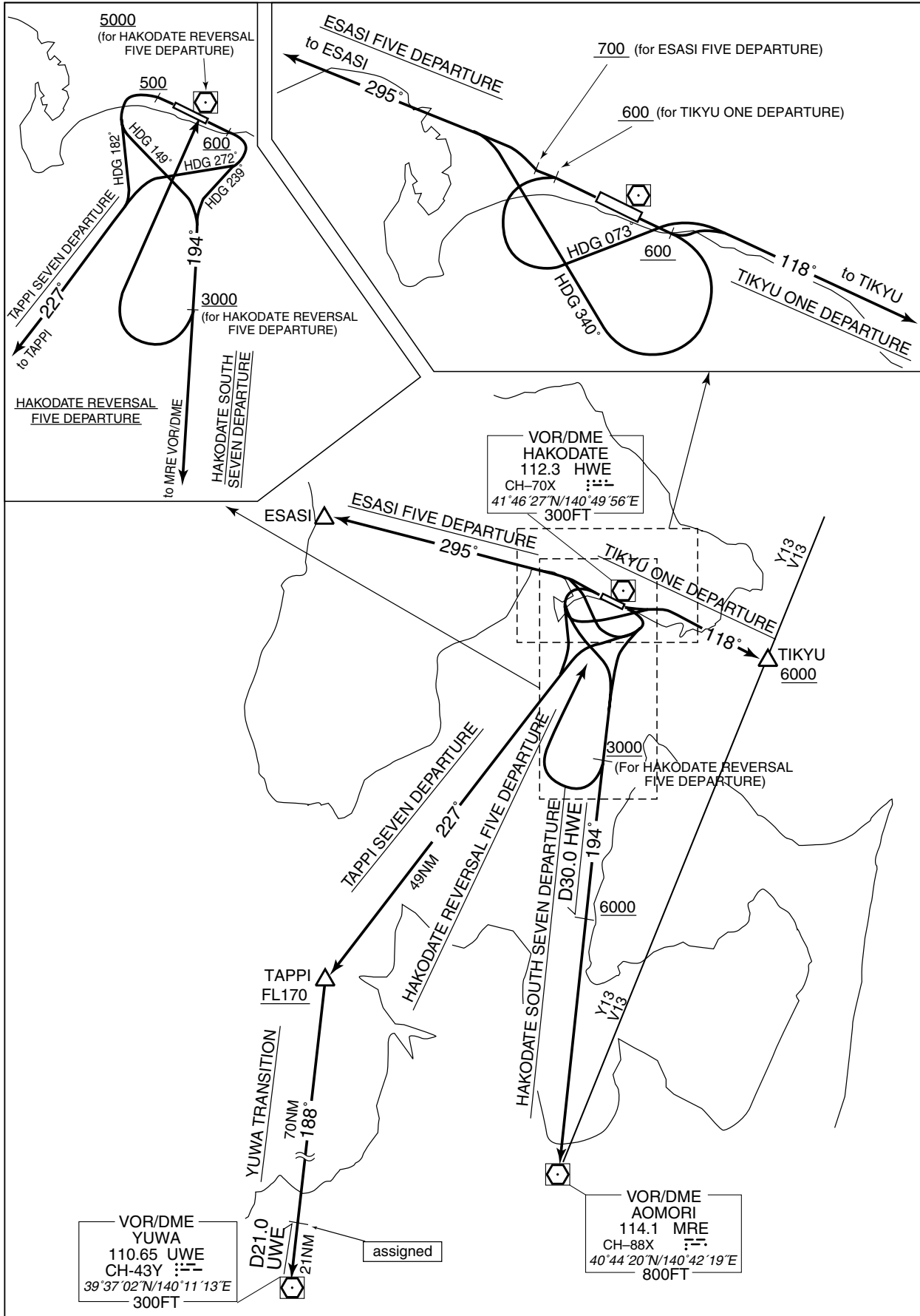
RWY30 : 5.4% climb gradient required up to 1600FT.

OBST ALT 1296FT located at 4.63NM 267° FM end of RWY30.

STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

SID and TRANSITION



STANDARD ARRIVAL CHART - INSTRUMENT

RNAV STAR  
RWY 30

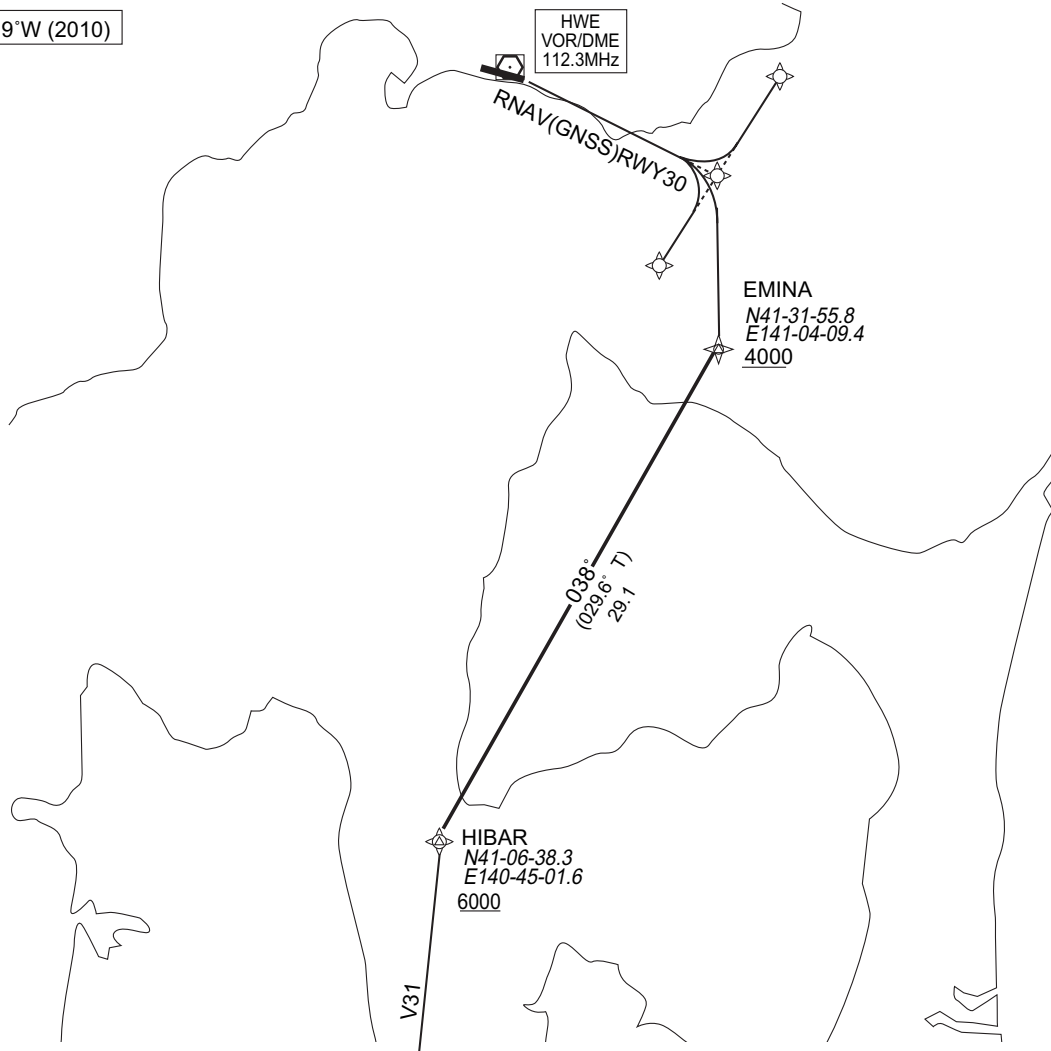
RJCH / HAKODATE

EMINA RNAV ARRIVAL

RNAV 1

Note 1 ) DME/DME/IRU or GNSS required  
2 ) RADAR service required

VAR 9°W (2010)



EMINA RNAV ARRIVAL

From HIBAR at or above 6000FT, to EMINA at or above 4000FT.

FIX	DESIGNATION	COORDINATES
	HIBAR	410638.3N 1404501.6E
EMINA	413155.8N 1410409.4E	
Critical DME	MWE	HIBAR - 10NM to EMINA
	MRE	21NM to EMINA - 9NM to EMINA
DME GAP	-	
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	HIBAR	-	-	-	-	+6000	-	-	RNAV1
TF	EMINA	-	29.1	038° (029.6°)	-	+4000	-	-	RNAV1



STANDARD ARRIVAL CHART - INSTRUMENT

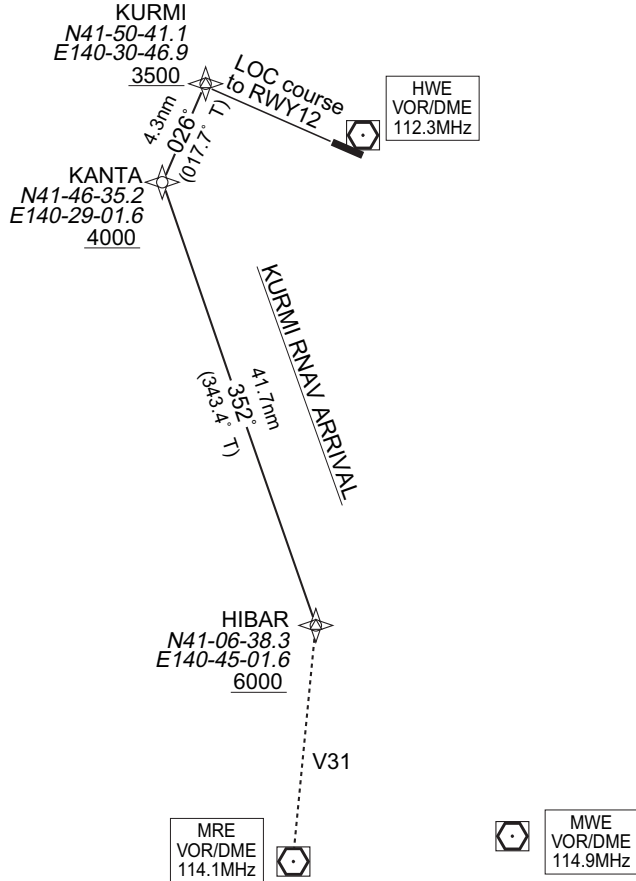
RJCH / HAKODATE

RNAV STAR RWY 12

KURMI RNAV ARRIVAL RNAV 1

Note 1 ) DME/DME/IRU or GNSS required  
2 ) RADAR service required

VAR 9°W (2009)



From HIBAR at or above 6000FT, to KANTA, at or above 4000FT, to KURMI at or above 3500FT.

FIX	DESIGNATION	COORDINATES
	HIBAR	410638.3N 1404501.6E
	KANTA	414635.2N 1402901.6E
	KURMI	415041.1N 1403046.9E
Critical DME	MWE : HIBAR - 22NM to KANTA MRE : 10NM to KANTA – KANTA HWE : 25NM to KANTA – KANTA	
DME GAP	KANTA – KURMI	
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAV AIDs for RNAV1	

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	HIBAR	—	—	—	—	+6000	—	—	RNAV1
TF	KANTA	—	41.7	352° (343.4°)	—	+4000	—	—	RNAV1
TF	KURMI	—	4.3	026° (017.7°)	—	+3500	—	—	RNAV1

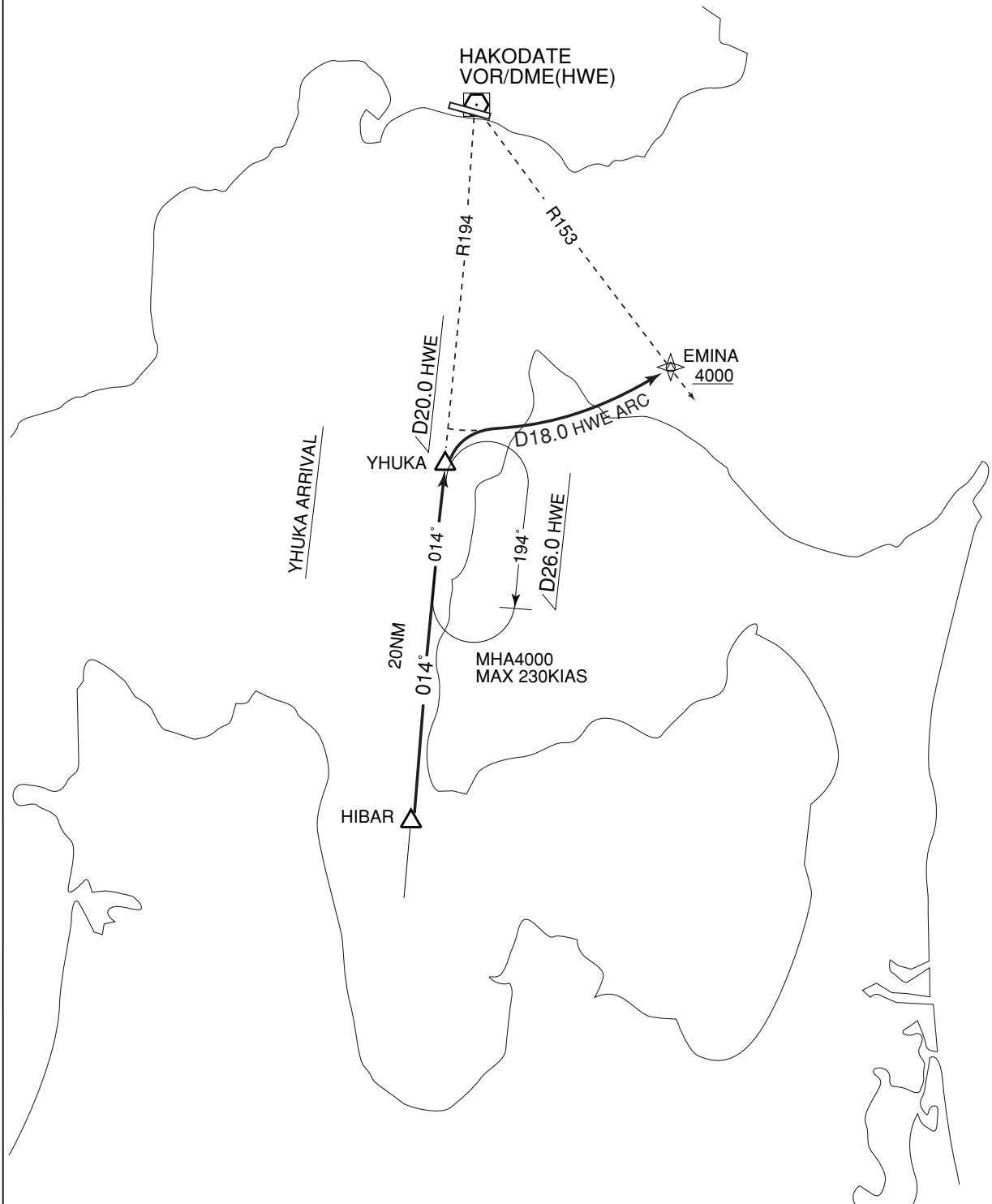
STANDARD ARRIVAL CHART - INSTRUMENT

RJCH / HAKODATE

STAR

YHUKA ARRIVAL

From over HIBAR, via HWE R194 to YHUKA, turn right via HWE 18.0DME counterclockwise ARC to EMINA.  
Cross EMINA at or above 4000FT.

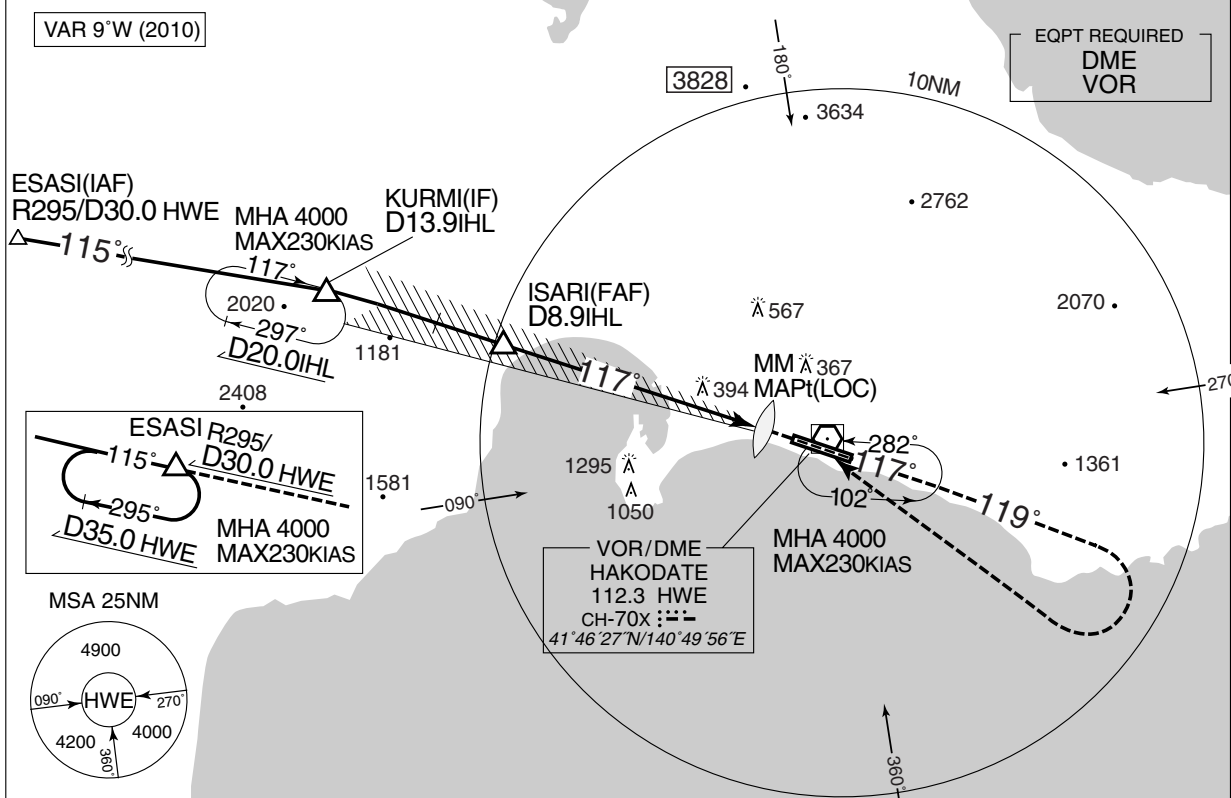


INSTRUMENT APPROACH CHART

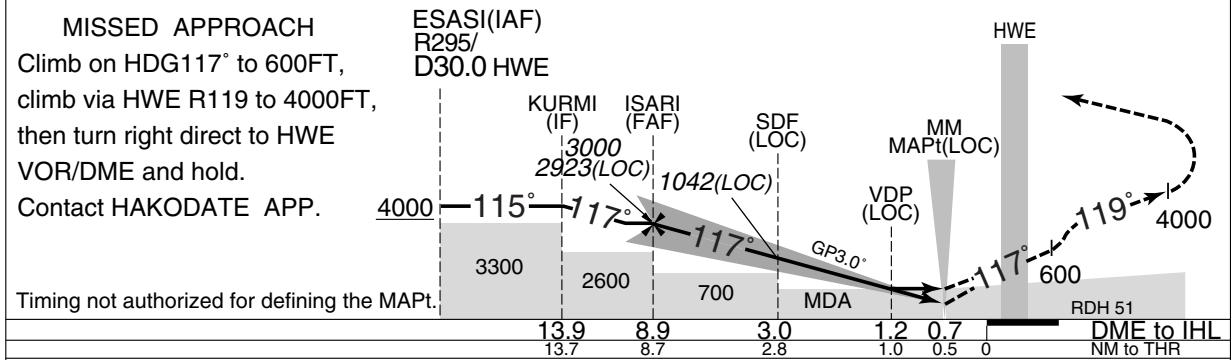
RJCH / HAKODATE

ILS Z or LOC Z RWY 12

HAKODATE APP 119.0 – 121.0 258.9 – 127.9	ILS-LOC 109.3 IHL :::: ILS-GP 332.0 ILS-DME IHL CH-30x	HAKODATE TWR 118.35 – 258.3 – 126.2	RADAR AVBL ATIS 126.6
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	NM to IHL	FAF	8	7	6	5	4	3	2	1	MAPt
	ALT (3.0° APCH Path)	2923	2634	2316	1997	1679	1361	1042	724	-	-



Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 92		AD elev. 112		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	292 (200)	700	470 (378)	1200	550 (438)	1600
B				1300	570 (458)	
C				1400	600 (488)	2400
D				1600	690 (578)	3200

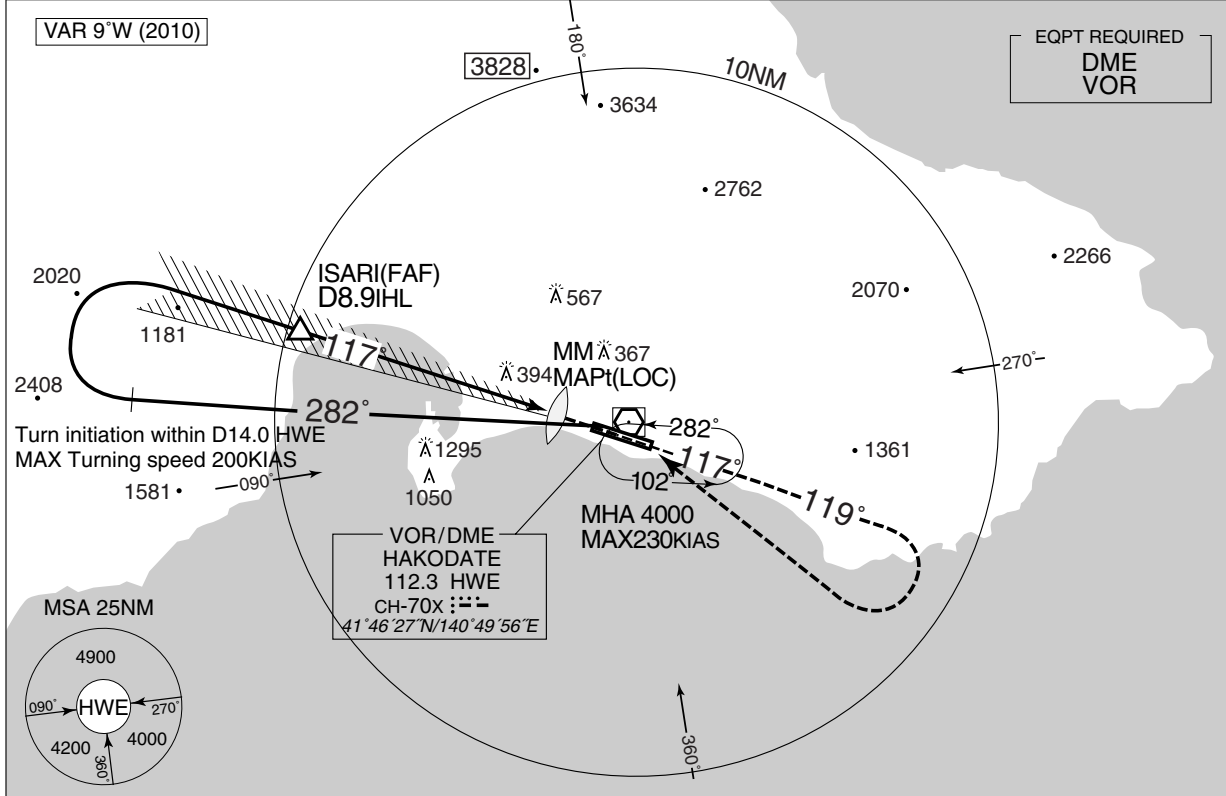
Circling to SOUTH side of RWY only.  
MINIMA with Missed APCH climb gradient of 2.5% are not established.

INSTRUMENT APPROACH CHART

RJCH / HAKODATE

ILS Y or LOC Y RWY 12

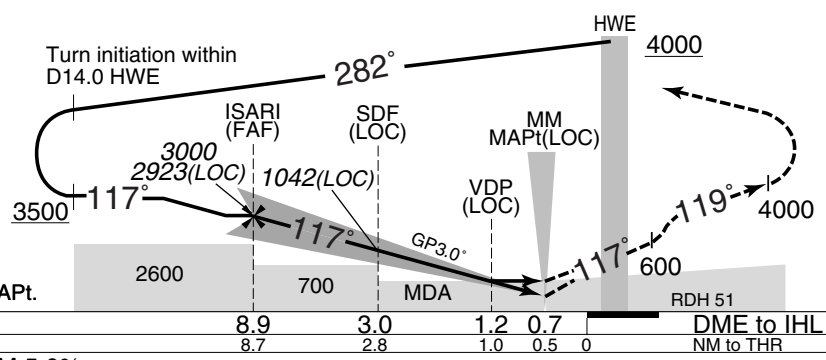
HAKODATE APP 119.0 – 121.0 258.9 – 127.9	ILS-LOC 109.3 IHL :::: ILS-GP 332.0 ILS-DME IHL CH-30x	HAKODATE TWR 118.35 – 258.3 – 126.2	RADAR AVBL ATIS 126.6
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	NM to IHL	FAF	8	7	6	5	4	3	2	1	MAPt
	ALT (3.0° APCH Path)	2923	2634	2316	1997	1679	1361	1042	724	-	-

MISSED APPROACH

Climb on HDG117° to 600FT,  
climb via HWE R119 to 4000FT,  
then turn right direct to HWE  
VOR/DME and hold.  
Contact HAKODATE APP.



Timing not authorized for defining the MAPt.

Missed APCH climb gradient MNM 5.0%

MINIMA		THR elev. 92		AD elev. 112		
CAT	CAT I		LOC		CIRCLING	
	DA(H)	RVR/CMV	MDA(H)	RVR/CMV	MDA(H)	VIS
A	292 (200)	700	470 (378)	1200	550 (438)	1600
B				1300	570 (458)	
C	299 (207)			1400	600 (488)	2400
D	309 (217)			1600	690 (578)	3200

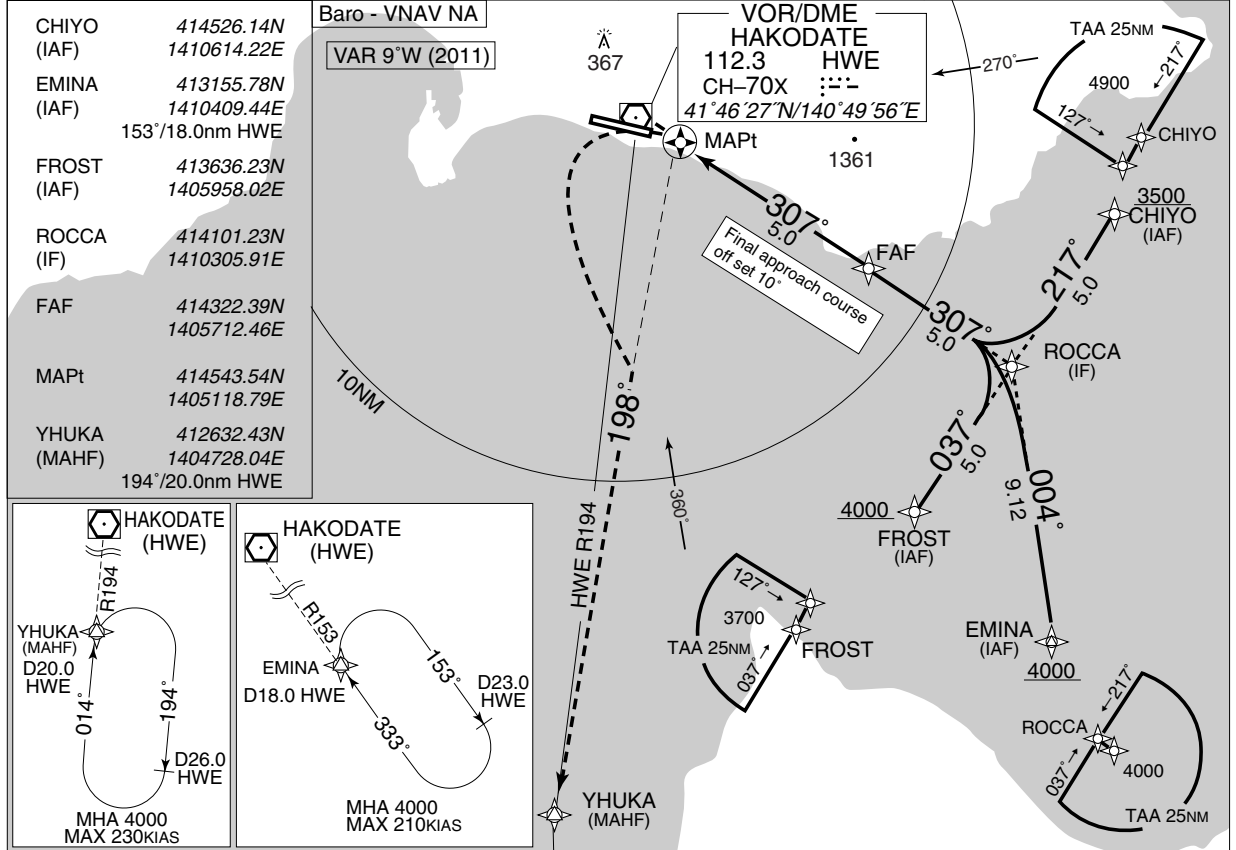
Circling to SOUTH side of RWY only.  
MINIMA with Missed APCH climb gradient of 2.5% are not established.

INSTRUMENT APPROACH CHART

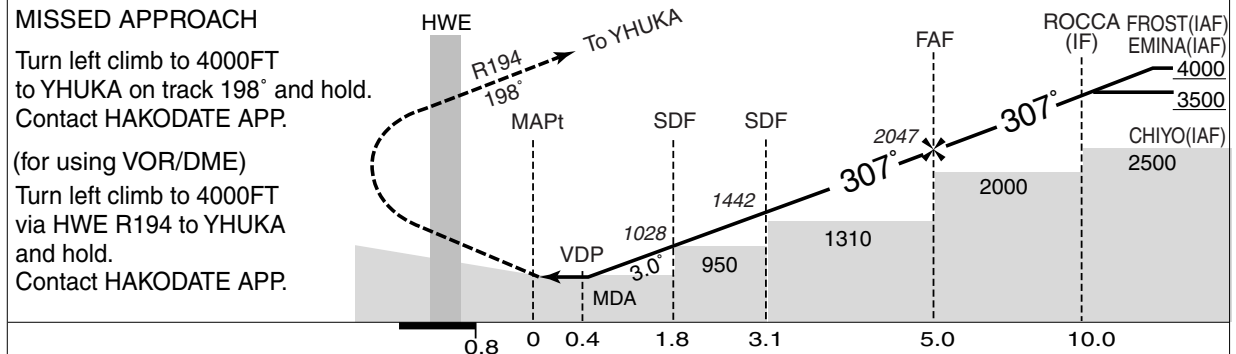
RJCH / HAKODATE

RNAV(GNSS) Y RWY 30

<b>HAKODATE APP</b> 119.0 – 121.0 258.9 – 127.9	1. DME/DME not authorized. 2. RADAR service required.	<b>HAKODATE TOWER</b> 118.35 – 258.3 – 126.2	<b>RADAR AVBL</b> ATIS 126.6
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NM to Next Fix	MAPt	1	2	3	4	FAF
ALT (3.0° APCH Path)	-	774	1092	1411	1729	2047



<b>MINIMA</b>		THR elev. 151		AD elev. 112		
CAT	LNAV/VNAV		LNAV		CIRCLING	
	DA(H)	CMV	MDA(H)	CMV	MDA(H)	VIS
A	-	-	-	900	550 (438)	1600
B	-	-	530 (418)	1000	570 (458)	
C	-	-	-	-	600 (488)	2400
D	-	-	550 (438)	1400	690 (578)	3200

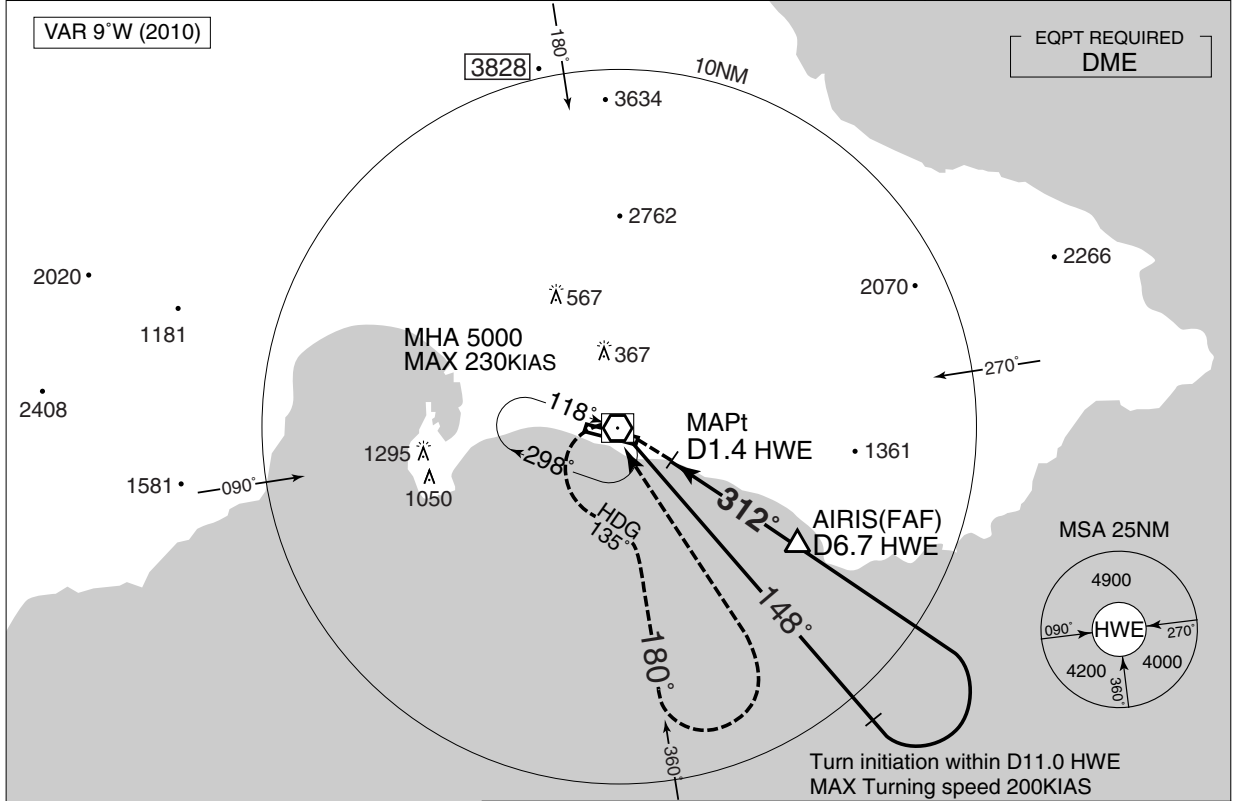
Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

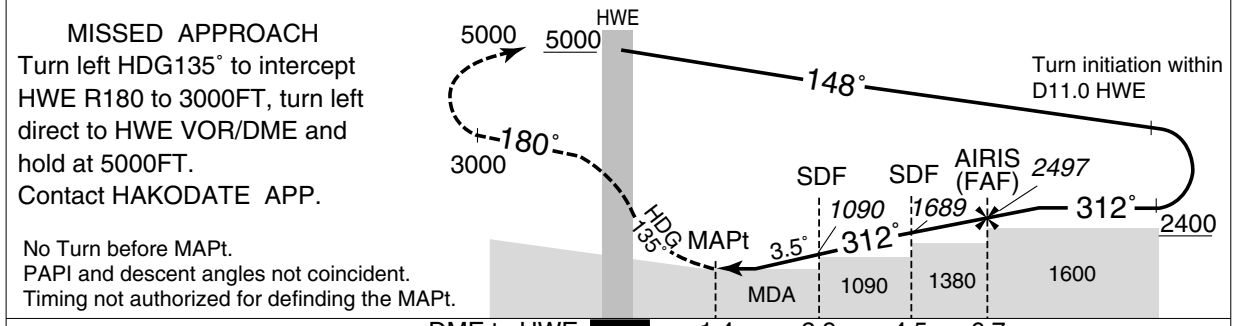
RJCH / HAKODATE

VOR RWY 30

HAKODATE APP 119.0 – 121.0 258.9 – 127.9	HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E	HAKODATE TOWER 118.35 – 258.3 – 126.2	RADAR AVBL ATIS 126.6
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	NM to HWE	MAPt	2	3	4	5	6	FAF
ALT (3.5° APCH Path)	-	750	1122	1494	1865	2237	2497	



DME to HWE	0	1.4	2.9	4.5	6.7
NM to THR	0	0.9	2.4	4.0	6.2

MINIMA		THR elev. 151	AD elev. 112
CAT			CIRCLING
	MDA(H)	CMV	MDA(H) VIS
A	730 (618)	1000	730 (618) 1600
B		1200	
C		1600	
D		3200	

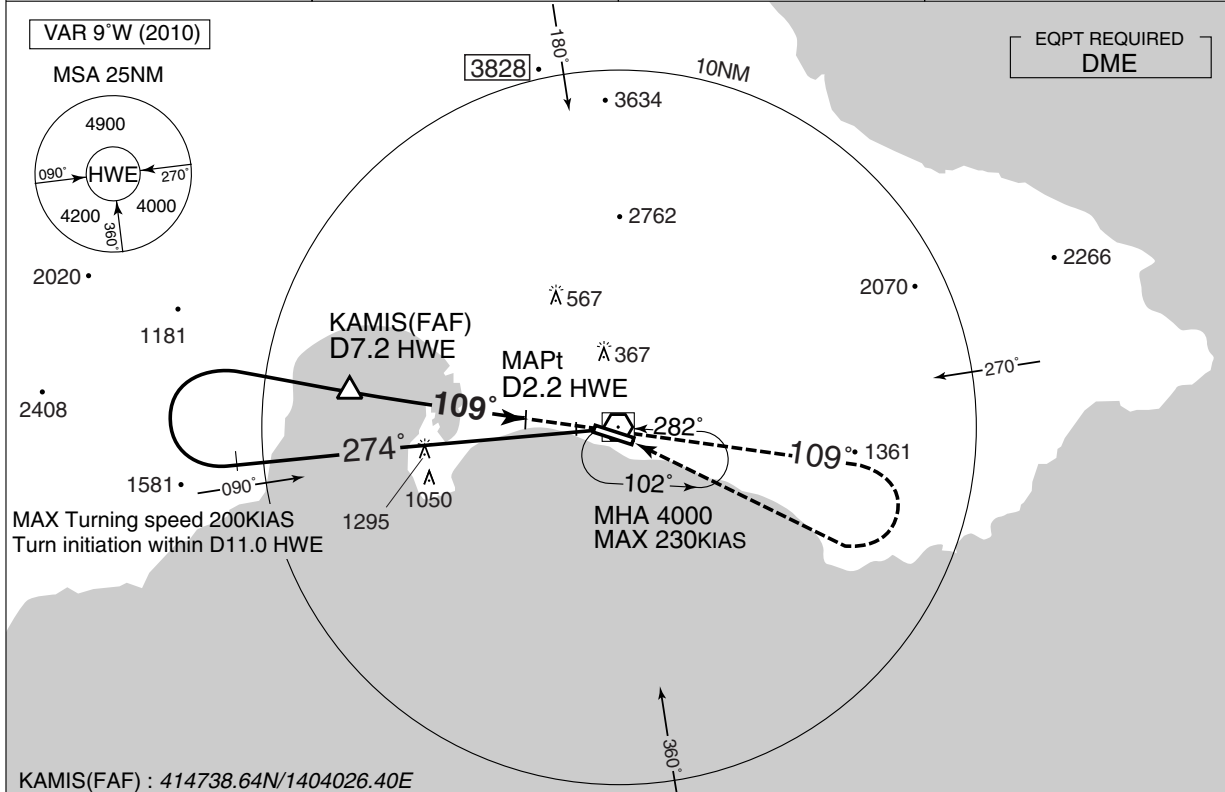
Circling to SOUTH side of RWY only.

INSTRUMENT APPROACH CHART

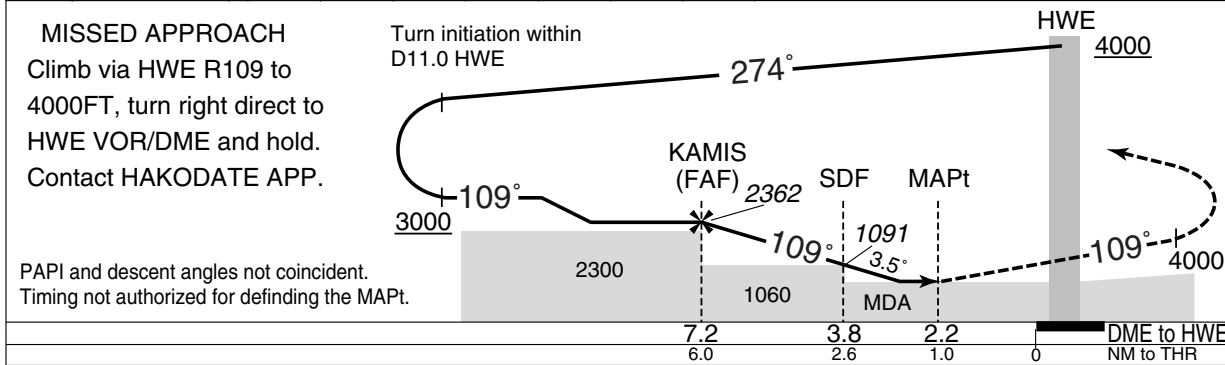
RJCH / HAKODATE

VOR RWY 12

HAKODATE APP 119.0 – 121.0 258.9 – 127.9	HAKODATE VOR/DME 112.3 HWE CH-70X 41°46'27"N/140°49'56"E	HAKODATE TOWER 118.35 – 258.3 – 126.2	RADAR AVBL ATIS 126.6
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NM to HWE	FAF	7	6	5	4	3	MAPt
ALT (3.5° APCH Path)	2362	2293	1922	1550	1178	807	-



Missed APCH climb gradient MNM 3.6%

MINIMA		THR elev. 92	AD elev. 112	
CAT	MDA(H)	RVR/CMV	CIRCLING	
			MDA(H)	VIS
A	530 (438)	1200	550 (438)	1600
B			570 (458)	
C			600 (488)	
D			690 (578)	

Circling to SOUTH side of RWY only.  
MINIMA with Missed APCH climb gradient of 2.5% are not established.

RJCH / HAKODATE

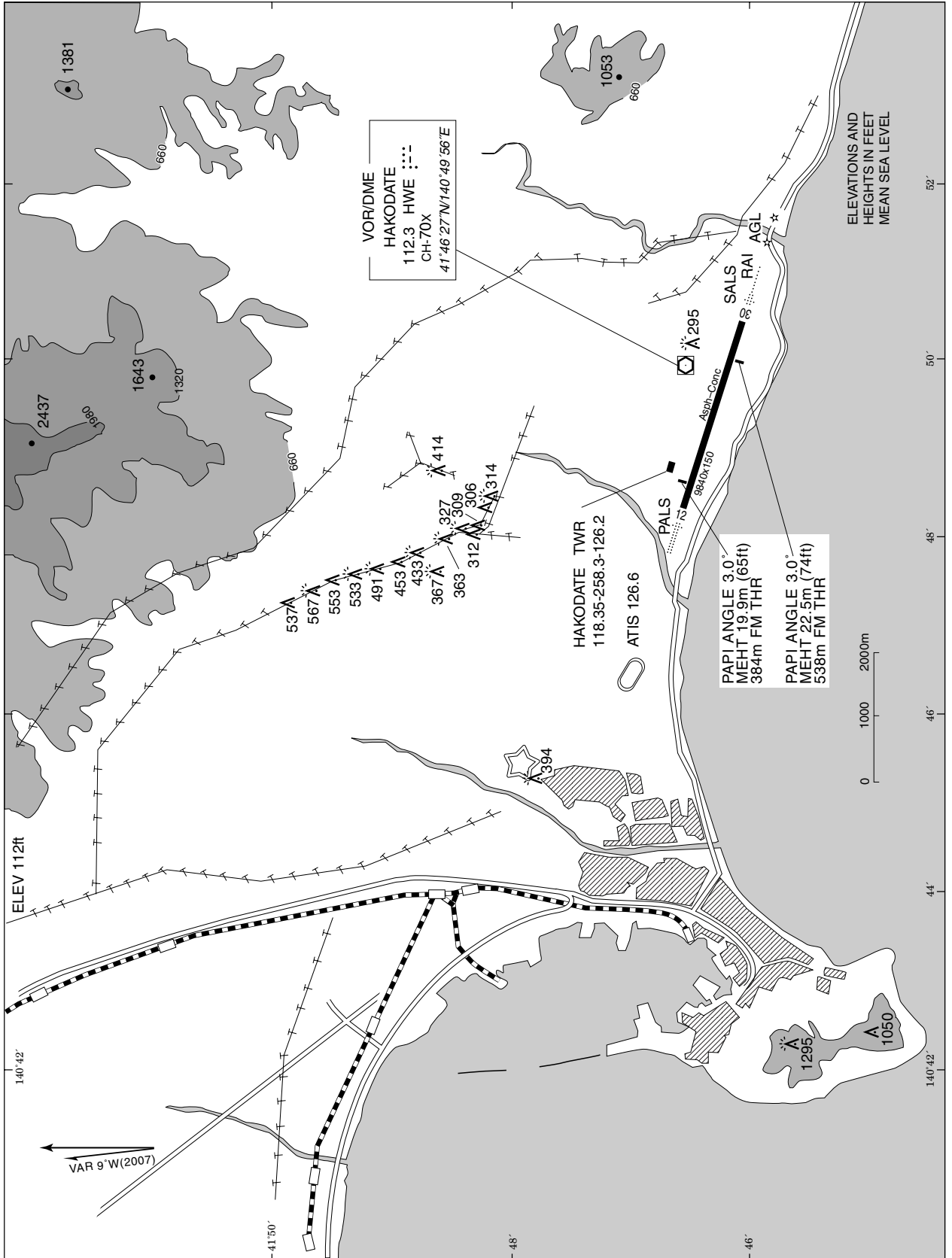
Visual REP



Call sign	BRG / DIST from ARP	Remarks
矢 別 Yabetsu	052°/ 5.7NM	ダム Dam
恵 山 岬 Esanmisaki	089°/16.4NM	灯台 Lighthouse
汐 首 岬 Shio kubimisaki	128°/ 7.3NM	灯台 Lighthouse
大 間 崎 Ohmazaki	170°/14.2NM	岬 Cape
5NM S	180°/ 5.0NM	海上 Over the sea
美 原 Mihara	319°/ 4.5NM	ラジオアンテナ Radio antenna
桔 梗 Kikyou	325°/ 5.7NM	JR駅 JR Station
当 別 Tohbetsu	270°/11.5NM	トラビスト修道院 Religious house
函 館 山 Hakodateyama	271°/ 5.3NM	テレビ塔 TV tower
大 沼 Ohnuma	340°/14.4NM	JR駅 JR Station



LDG CHART

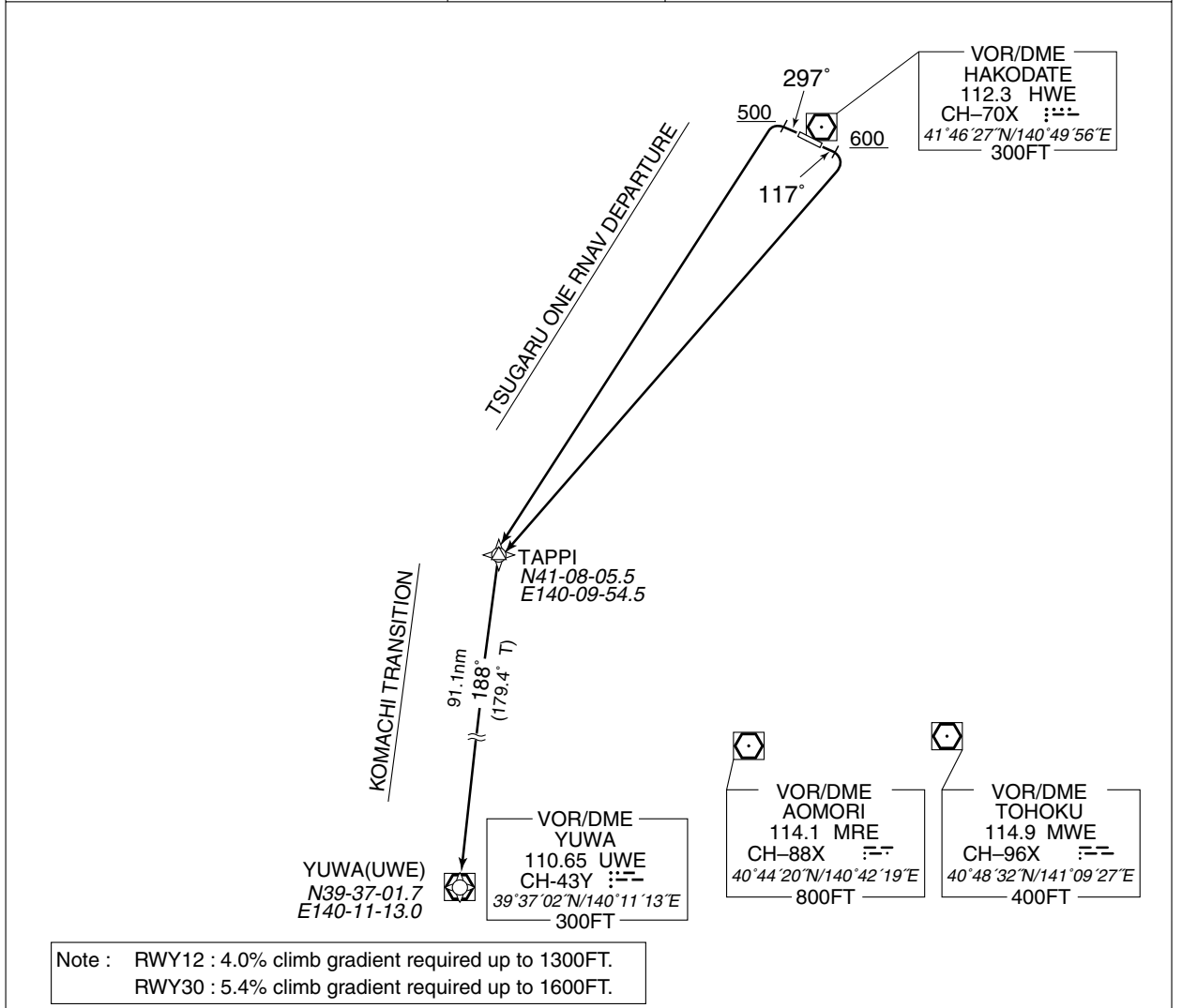


STANDARD DEPARTURE CHART - INSTRUMENT

RJCH / HAKODATE

RNAV SID and TRANSITION

TSUGARU ONE RNAV DEPARTURE		RNAV 1
Note 1) DME/DME/IRU or GNSS required. ※The aircraft equipped with only DME/DME/IRU must be able to update its position without delay at the starting point of take-off roll. 2) RADAR service required.	Critical DME	RWY12 : MWE : 35NM to TAPPI – 30NM to TAPPI HWE : 35NM to TAPPI – 32NM to TAPPI RWY30 : MRE : 47.6NM to TAPPI – 35NM to TAPPI HWE : 47.6NM to TAPPI – 40NM to TAPPI KOMACHI Transition : MRE: TAPPI - 82NM to YUWA, 40NM to YUWA - 24NM to YUWA HWE: TAPPI - 80NM to YUWA UWE: 38NM to YUWA - 24NM to YUWA HPE: 22NM to YUWA - 19NM to YUWA MWE, UWE: 19NM to YUWA - 16NM to YUWA
	DME GAP	RWY12 : RWY12DER – 35NM to TAPPI RWY30 : RWY30DER – 47.6NM to TAPPI KOMACHI Transition: 24NM to YUWA – 22NM to YUWA
	Inappropriate NavAids	See AD1.1.6.10.3. Inappropriate NAVAIDS for RNAV1



Note : RWY12 : 4.0% climb gradient required up to 1300FT.  
 RWY30 : 5.4% climb gradient required up to 1600FT.

<p><b>TSUGARU ONE RNAV DEPARTURE</b>                      RWY12 : Climb on heading 117° at or above 600FT, turn right direct to TAPPI.                      RWY30 : Climb on heading 297° at or above 500FT, turn left direct to TAPPI.</p>
<p><b>KOMACHI TRANSITION</b>                      From TAPPI, to YUWA(UWE).</p>
<p>Note : RWY12 : 4.0% climb gradient required up to 1300FT.                      OBST ALT 919FT located at 105°/3.43NM FM DER.                      RWY30 : 5.4% climb gradient required up to 1600FT.                      OBST ALT 1296FT located at 267°/4.63NM FM DER.</p>

## STANDARD DEPARTURE CHART - INSTRUMENT

## RJCH / HAKODATE

## RNAV SID and TRANSITION

TSUGARU ONE RNAV DEPARTURE

## RWY12

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	117° (108.0°)	—	600	—	—	RNAV1
DF	TAPPI	—	—	—	R	—	—	—	RNAV1

## RWY30

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
VA	—	—	—	297° (288.1°)	—	500	—	—	RNAV1
DF	TAPPI	—	—	—	L	—	—	—	RNAV1

KOMACHI TRAISITION

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	TAPPI	—	—	—	—	—	—	—	RNAV1
TF	YUWA(UWE)	—	91.1	188° (179.4°)	—	—	—	—	RNAV1

STANDARD ARRIVAL CHART - INSTRUMENT

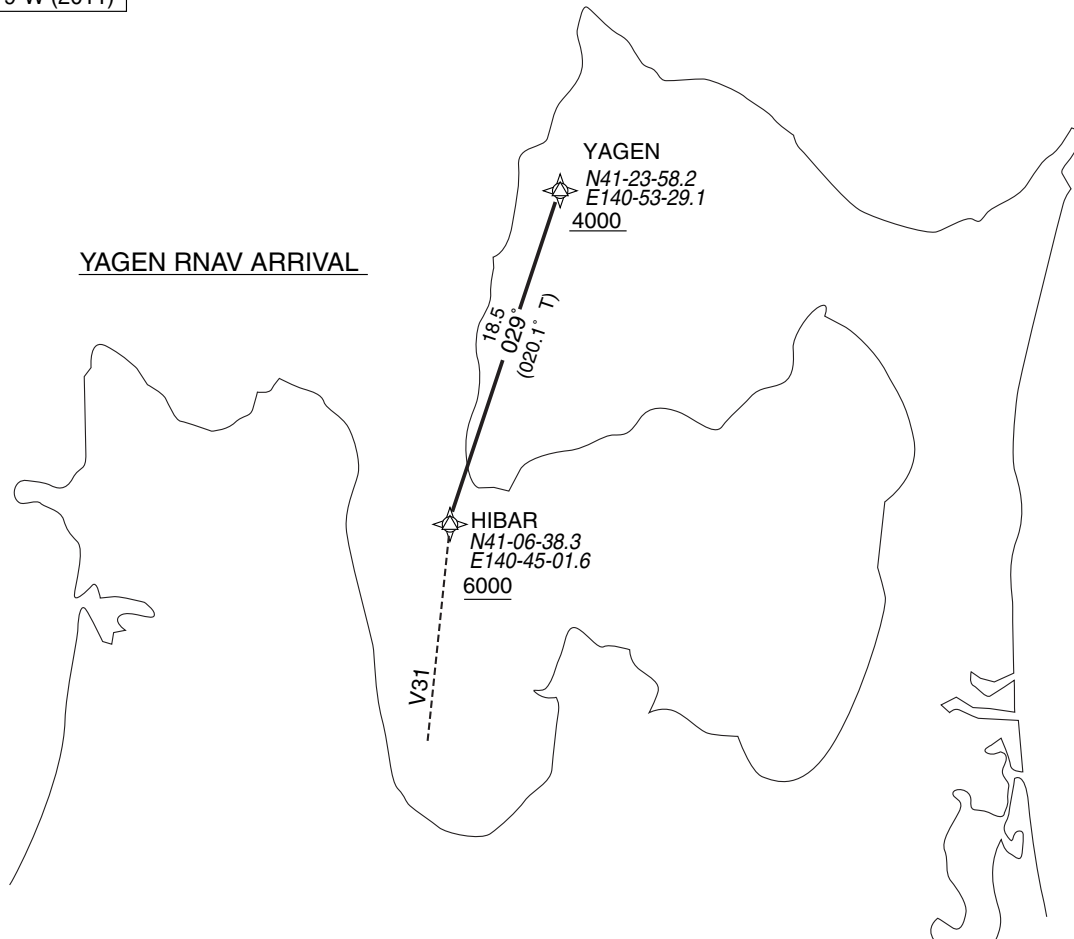
RJCH / HAKODATE

➔ RNAV STAR RWY 30

YAGEN RNAV ARRIVAL RNAV 1

Note 1 ) DME/DME/IRU or GNSS required.  
2 ) RADAR service required.

VAR 9°W (2011)



YAGEN RNAV ARRIVAL

From HIBAR at or above 6000FT, to YAGEN at or above 4000FT.

FIX	DESIGNATION	COORDINATES
	HIBAR	410638.3N 1404501.6E
YAGEN	412358.2N 1405329.1E	
Critical DME	MWE : HIBAR - 7NM to YAGEN	
DME GAP	-	
Inappropriate Nav aids	See AD1.1.6.10.3. Inappropriate NAVAIDs for RNAV1	

Rcmd. Path Terminator	Fix ID (Waypoint Name)	Fly Over	Distance (NM)	MAG Track (TRUE Track)	Turn Direction	Altitude (FT)	Speed Limit (KIAS)	Vertical Angle	Navigation Performance
IF	HIBAR	—	—	—	—	+6000	—	—	RNAV1
TF	YAGEN	—	18.5	029° (020.1°)	—	+4000	—	—	RNAV1

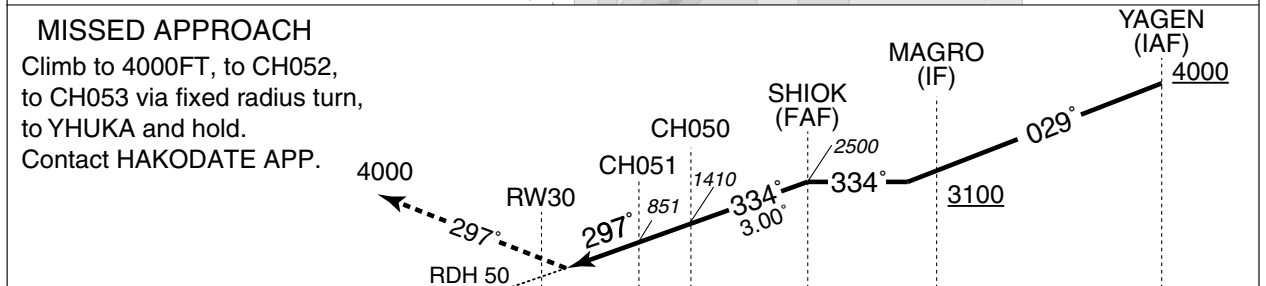
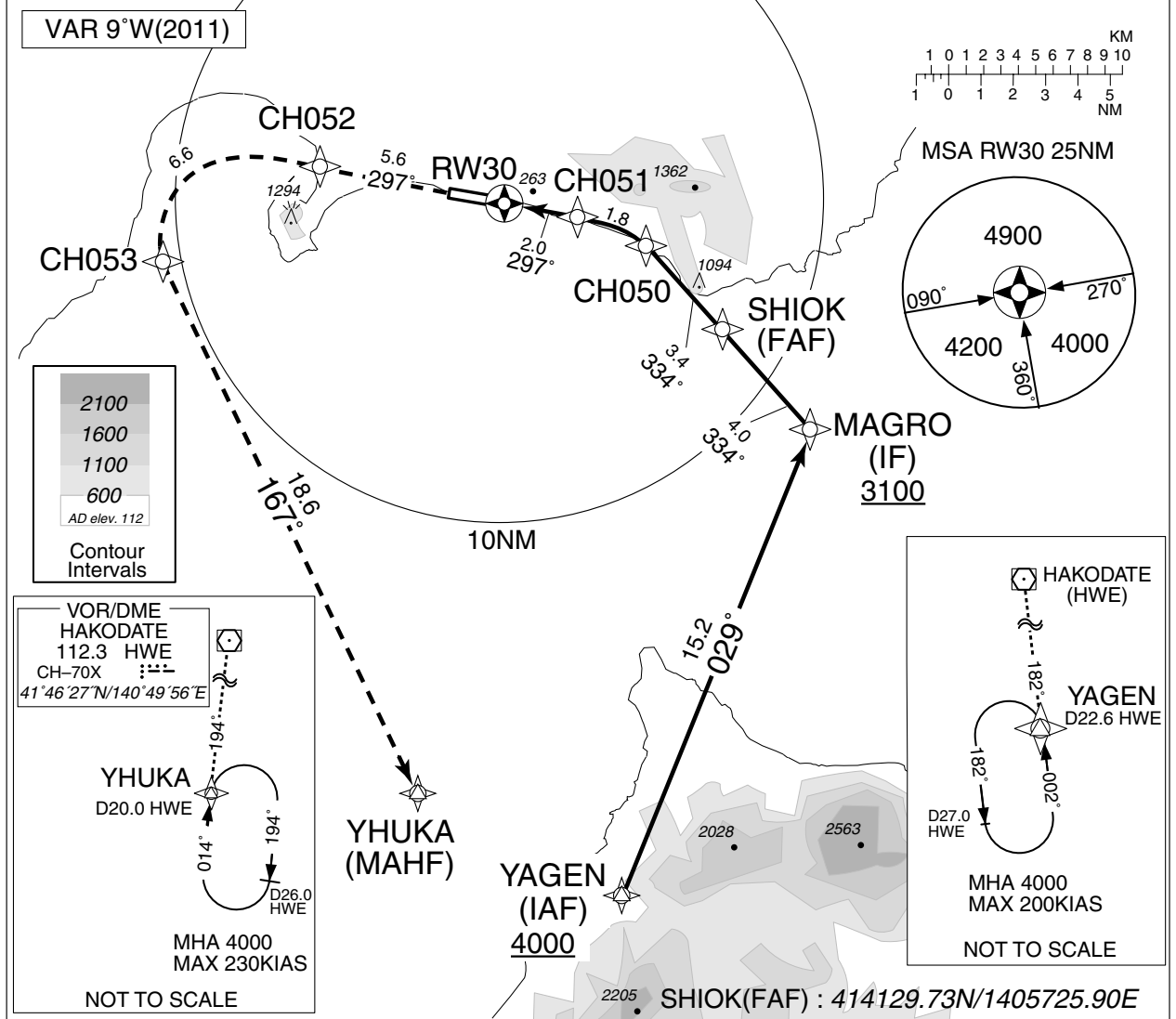
INSTRUMENT APPROACH CHART

RJCH / HAKODATE

➔ RNAV(RNP) Z RWY 30

HAKODATE APP 119.0 – 121.0 258.9 – 127.9	GNSS and RF required	HAKODATE TWR 118.35 – 258.3 – 126.2	RADAR AVBL ATIS 126.6
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For uncompensated Baro-VNAV systems, procedure NA below -15°C / above 45°C



MINIMA		THR elev. 151	AD elev. 112
		RNP 0.30	
CAT	DA(H)	CMV	
A	—	—	
B	—	—	
C	522 (371)	1000	
D	—	1400	

**RNP AR**  
Special Authorization Required

## INSTRUMENT APPROACH CHART

RJCH / HAKODATE

➔ RNAV(RNP) Z RWY 30

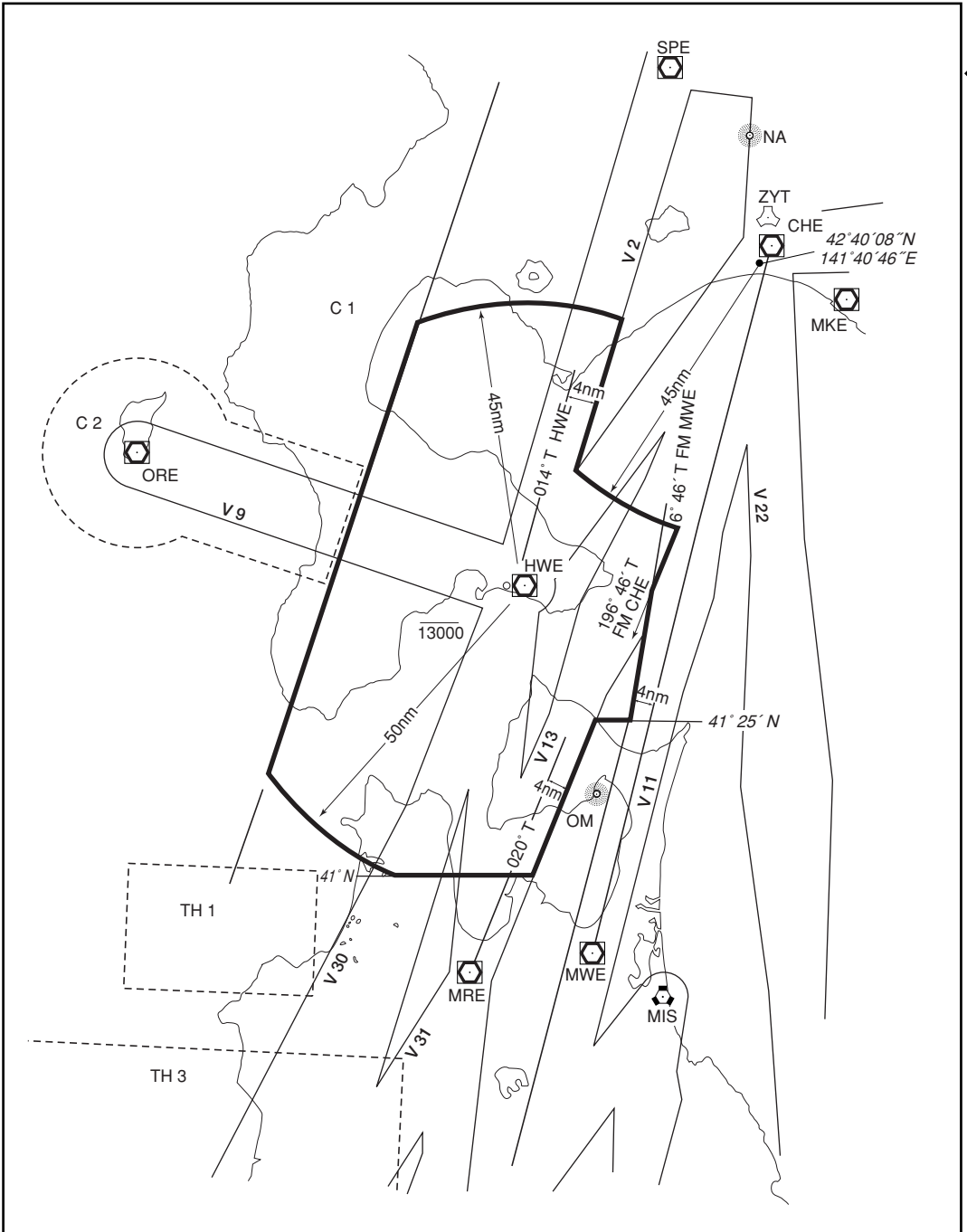
RNAV(RNP) Z RWY30Coding Table

Serial Number	Path Descriptor	Waypoint Identifier	Fly Over	Course [°M(°T)]	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (FT)	Speed (KIAS)	VPA/RDH (°/FT)	RNP Value
001	IF	YAGEN	—	—	-8.9	—	—	+4000	—	—	—
002	TF	MAGRO	—	029 (020.2)	-8.9	15.2	—	+3100	—	—	1.0
003	TF	SHIOK	—	334 (325.1)	-8.9	4.0	—	2500	—	—	1.0
004	TF	CH050	—	334 (325.0)	-8.9	3.4	—	—	—	—	0.3
005	RF Center: CHRF1 r=2.74NM	CH051	—	—	-8.9	1.8	L	—	—	—	0.3
006	TF	RW30	Y	297 (288.1)	-8.9	2.0	—	—	—	-3.00/ 50	0.3
007	TF	CH052	—	297 (288.1)	-8.9	5.6	—	—	—	—	1.0
008	RF Center: CHRF2 r=2.90NM	CH053	—	—	-8.9	6.6	L	—	—	—	1.0
009	TF	YHUKA	—	167 (158.5)	-8.9	18.6	—	4000	—	—	1.0

Waypoint Coordinates

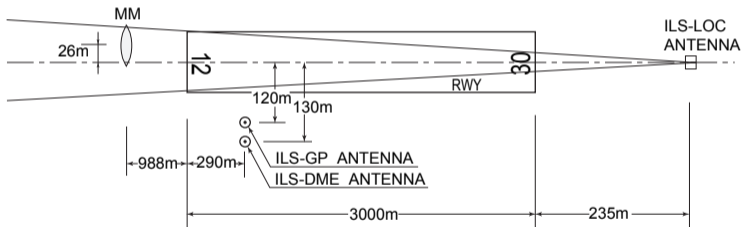
Waypoint Identifier	Coordinates	RF Arc Center Identifier	Coordinates
YAGEN	412358.17N/1405329.09E	CHRF1	414243.29N/1405148.88E
MAGRO	413813.12N/1410029.95E	CHRF2	414456.26N/1404159.49E
SHIOK	414129.73N/1405725.90E		
CH050	414417.82N/1405448.22E		
CH051	414519.47N/1405256.91E		
RW30	414557.54N/1405021.00E		
CH052	414742.10N/1404311.31E		
CH053	414352.33N/1403822.94E		
YHUKA	412632.43N/1404728.04E		

函館進入管制区  
Hakodate Approach Control Area



# ILS

## HAKODATE AP



REMARKS : 1.ILS-LOC beam(BRG)	117°
2.ILS-GP Angle	3.0°
3.HGT of ILS REF datum	15.5m(51.0ft)
4.ELEV of ILS-DME	34.0m(112ft)